

C l a i m s

1. Suspension device for at least one drive part (10) which is to be cushioned and which can be connected by means of a first valve unit (28) to an accumulator device (12) which is used for suspension in order to carry fluid, and which drive part can be connected by means of a second valve unit (34) to a tank connection (46) in order to carry fluid, characterized in that there is a pressure compensation device (50) which, when actuated, equalizes the respective fluid pressure prevailing from the drive part (10) and from the accumulator device (12) to one another for producing a common pressure level.
2. The suspension device as claimed in claim 1, wherein the drive part (10) consists of at least one working cylinder (14), and wherein the accumulator device (12) consists of at least one hydraulic accumulator (52).
3. The suspension device as claimed in claim 1 or 2, wherein the pressure compensation means (50) is mounted in a parallel connection (48) to the two valve units (28, 34).
4. The suspension device as claimed in claim 2 or 3, wherein the respective hydraulic accumulator (52) can be charged with the fluid pressure from the working cylinder (14) by way of a check valve (36) which is preferably integrated in the first valve unit (28).

5. The suspension device as claimed in one of claims 2 to 4, wherein the respective working cylinder (14) with its piston side (16, 20) is connected on the input side (26) to the first valve unit (28) to which on the output side (38) the respective hydraulic accumulator (52) is connected, and wherein the respective working cylinder (14) with its rod side (18, 22) is connected on the input side (32) to the second valve control unit (34) on which the tank connection (46) is located on the output side (44).
6. The suspension device as claimed in claim 5, wherein the pressure compensation means (50) has a compensator (62) with control inputs (66, 68) which are connected on the one hand to the input side (26) of the first valve unit (28) in order to carry fluid, and on the other hand to the output side (38) of the first valve unit (28).
7. The suspension device as claimed in claim 6, wherein one control input (66) of the compensator (62) which is connected to the input side (26) of the first valve unit (28) in order to carry fluid is provided with a choke (70).
8. The suspension device as claimed in claim 6 or 7, wherein the input side (74) of the compensator (62) is connected to the output side (38) of the first valve unit (28), and wherein the output side (76) of the compensator (62) is connected preferably by way of a metering choke (64) to a third valve unit (80) which has an output (82) which is connected to the tank connection (46).

9. The suspension device as claimed in claim 8, wherein the three valve units (28, 34, 80) together with the compensator (62) and a pressure limitation valve (84), which in a parallel connection to the compensator (62) protects the respective hydraulic accumulator (52) against overpressure, as a suspension control block (86) form a retrofittable functional unit.
10. The suspension device as claimed in one of claims 1 to 9, wherein the respective drive part (10) can be actuated by means of a control block (90) by way of two control lines (92, 94).